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Nuclear criticality safety — Estimation of the number of fissions of a postulated criticality accident

Sécurité de criticité nucléaire — Évaluation du nombre de fissions en cas d'un hypothétique accident de criticité

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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

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Contents

Page

Foreword

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The committee responsible for this document is ISO/TC 85, *Nuclear energy, nuclear technologies, and radiological protection*, Subcommittee SC 5, *Nuclear fuel cycle*.

Introduction

In activities involving fissile materials, the potential for a criticality accident occurrence cannot be totally excluded. Therefore, in order to prepare emergency responses in case of such an occurrence, ISO 27467 specifies areas to be studied (Annex A) to perform the analysis of potential consequences whenever a credible criticality accident may occur. This International Standard deals with one of these areas and is devoted to the estimate of number of fissions (also commonly named “fission yield”) for a postulated criticality accident. This topic is essential because most of the other issues of the criticality accident analysis depend on a suitable estimate of this number of fissions.